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=> file reg
FILE 'REGISTRY' ENTERED AT 11:10:03 ON 20 APR 2005
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=> d his


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L1                STR

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L4              0 S L3

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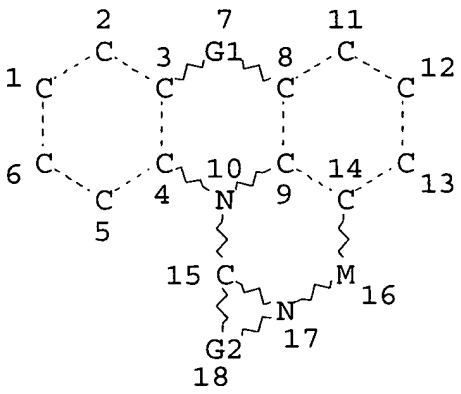


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DEFAULT ECLEVEL IS LIMITED
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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE
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=> file zcaplus
FILE 'ZCAPLUS' ENTERED AT 11:10:13 ON 20 APR 2005
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=> d l5 1 all hitstr

L5 ANSWER 1 OF 1 ZCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:780712 ZCAPLUS
DN 141:285562
ED Entered STN: 24 Sep 2004
TI Organic metal complex, electroluminescent material using the complex and electroluminescent element using the complex
IN Seo, Satoshi; Inoue, Hideko; Tokuda, Atsushi
PA Semiconductor Energy Laboratory Co., Ltd., Japan
SO PCT Int. Appl., 73 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM C07F015-00
ICS C09K011-06; H05B033-14; C07D417-04; C07D413-04
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 29, 78
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004081019	A1	20040923	WO 2004-JP1165	20040205

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,

GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,
SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,
DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG

US 2005006625 A1 20050113 US 2004-777519
200402
12

PRAI JP 2003-35969 A 20030214
JP 2003-188960 A 20030630

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004081019	ICM	C07F015-00
	ICS	C09K011-06; H05B033-14; C07D417-04; C07D413-04
WO 2004081019	ECLA	C07D213/74D4
US 2005006625	ECLA	C07D213/74D4; C07F015/00N3

OS MARPAT 141:285562

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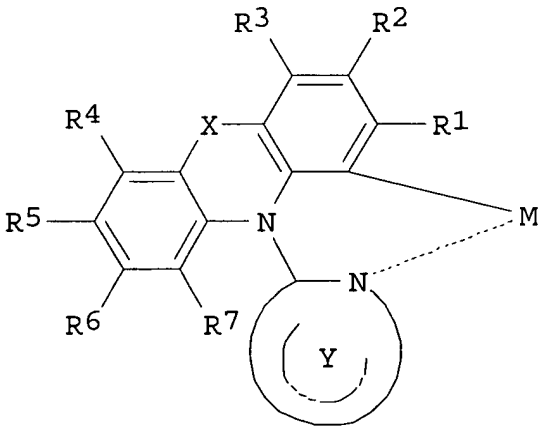
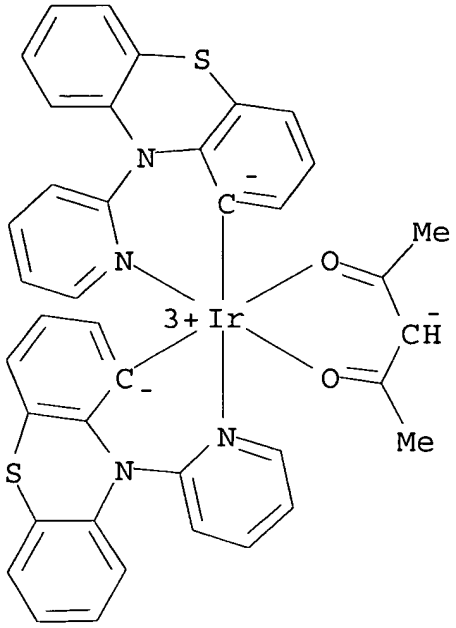


I

AB The invention relates to a novel organometallic complex represented by I [R1-R7 = H, halo, low alkyl, alkoxy, etc.; X = O and S; Y = nitrogen heterocyclic residue; M = Group III element] and an electroluminescent element using the organometallic complex. The organometallic complex can be prepd. in good yield using a ligand capable of being synthesized with ease, and is characterized by having excellent heat resistance. The electroluminescent element

exhibits improved luminous efficiency.
ST org metal complex electroluminescent device
IT Electroluminescent devices
Optical imaging devices
Phosphorescent substances
(org. metal complex for electroluminescent device)
IT **760176-55-4P 760176-57-6P 760176-58-7P**
(org. metal complex for electroluminescent device)
IT 92-84-2, Phenothiazine 98-98-6, Picolinic acid 123-54-6, Acetylacetone, reactions 135-67-1, Phenoxazine 5029-67-4, 2-Iodopyridine 717927-65-6
(org. metal complex for electroluminescent device)
IT 47041-09-8P 758700-11-7P **760176-54-3P**
760176-56-5P
(org. metal complex for electroluminescent device)
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Canon Inc; JP 2003342284 A 2003 ZCAPLUS
(2) Canon Kabushiki Kaisha; EP 1191613 A2 2002 ZCAPLUS
(3) Canon Kabushiki Kaisha; US 20020064681 A1 2002
(4) Canon Kabushiki Kaisha; JP 2003146996 A 2002 ZCAPLUS
(5) Thompson, M; US 20020034656 A1 2002 ZCAPLUS
(6) Thompson, M; US 20030017361 A1 2002
(7) Thompson, M; US 6097147 A 2002 ZCAPLUS
IT **760176-55-4P 760176-57-6P 760176-58-7P**
(org. metal complex for electroluminescent device)
RN 760176-55-4 ZCAPLUS
CN Iridium, (2,4-pentanedionato-.kappa.O,.kappa.O')bis[10-(2-pyridinyl-.kappa.N)-10H-phenothiazin-1-yl-.kappa.C]- (9CI) (CA INDEX NAME)



RN 760176-57-6 ZCAPLUS
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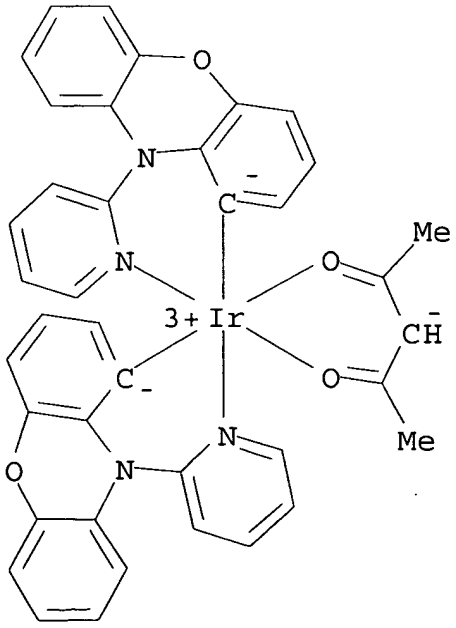
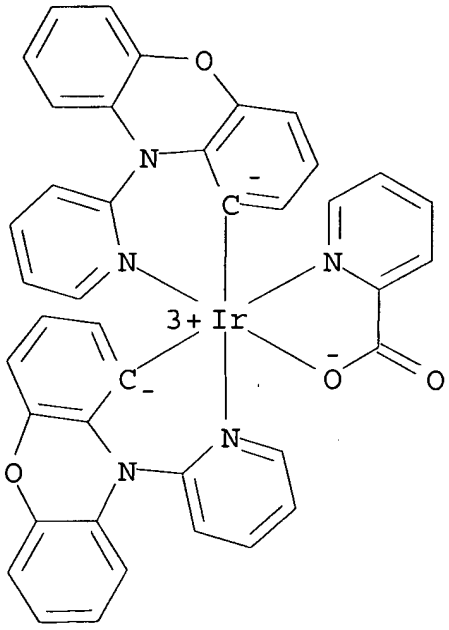
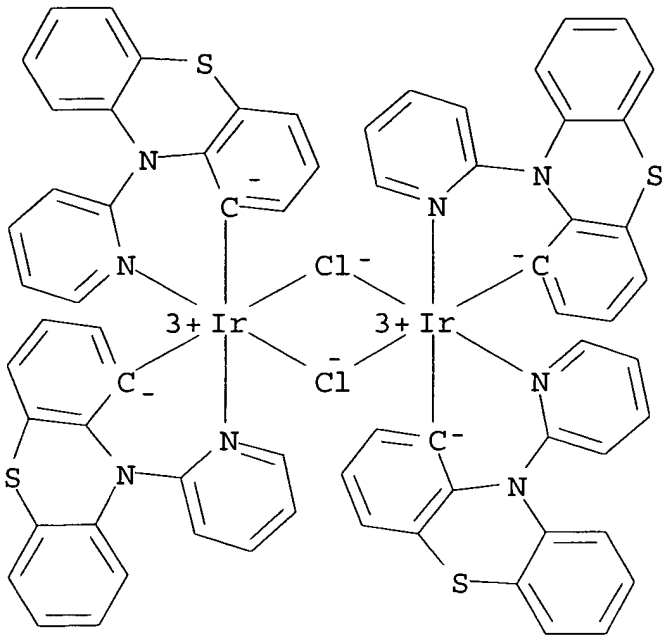


RN 760176-58-7 ZCAPLUS

CN Iridium, (2-pyridinecarboxylato-.kappa.N1,.kappa.O2)bis[10-(2-pyridinyl-.kappa.N)-10H-phenoxazin-1-yl-.kappa.C]- (9CI) (CA INDEX NAME)



IT **760176-54-3P 760176-56-5P**
(org. metal complex for electroluminescent device)
RN 760176-54-3 ZCAPLUS
CN Iridium, di-.mu.-chlorotetrakis[10-(2-pyridinyl-.kappa.N)-10H-phenothiazin-1-yl-.kappa.C]di- (9CI) (CA INDEX NAME)



RN 760176-56-5 ZCAPLUS
CN Iridium, di-.mu.-chlorotetrakis[10-(2-pyridinyl-.kappa.N)-10H-phenoxazin-1-yl-.kappa.C]di- (9CI) (CA INDEX NAME)